8 Looking Ahead

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EDITOR'S NOTE: This edition of *Natural Resource Year in Review* concludes with three forward-looking articles instead of the usual one. Ironically, the first, by Kent Turner, looks back on the tremendous change over the past 25 years or so in how natural resource management in the national parks is conducted. His experience at Lake Mead National Recreation Area over much of that period puts into perspective the remarkable gains we have made in professional resource management capabilities of the National Park Service, but also highlights significant concerns for sustainability of those gains for the future. Jon Jarvis takes us in a different direction, describing his vision for a cooperative national network of parks, unified in purpose and able to serve Americans better than can national, state, county, and city parks alone. Finally, Abby Miller reflects on the importance of developing leadership and seizing opportunities to continue to strengthen the National Park Service. Publication of the *Year in Review* coincides with Abby's retirement, and we can never thank her enough for the prime example of leadership and focus that she set during her tenure as Deputy Associate Director for Natural Resource Stewardship and Science. Her career in the National Park Service parallels many of the advances in natural resource management that Kent Turner observes in his article. Without Abby's sharp mind, comprehensive attention, and prodigious energy, the National Park Service might not have come as far in as short a time. These three articles paint a picture of the future for park resource stewardship that is certain to be challenging yet potentially satisfying. What more could we hope for?

A revolution in NPS resource management: Amid progress, challenges for the 21st century

By Kent Turner

HISTORY

Resource management in the National Park Service before the 1980s was limited to a scattered collection of resource specialists, most of whom began their careers as park rangers. They worked alone, focusing on taking advantage of limited funds and opportunities to solve manageable problems at the local level while identifying larger issues that would require nonpark staff assistance and funding. However, in 1982 the resource management profession in the Park Service began to grow with the first in a series of Resource Management Trainee classes. As a result, the goal for much of the 1980s became establishing at least one resource management specialist position in every park with significant natural resources. Though funding for project implementation remained limited, the initial infusion of resource management staffing was able to accomplish many things, the most significant of which may have been to create, for the first time, the professional capability to document the need for more resource management activities across the National Park System.

The establishment of 11 "prototype monitoring parks," the precursor to today's monitoring networks, and the 1990s program for "professionalization of resource management" led to significant increases in resource management capability at a number of parks. By the 1990s, several parks had the staff to strategically mount a comprehensive resource program and marshal the growing availability of fiscal resources to advance their programs. Since then, relatively stable budgets, combined with operational cost increases at all park levels, have necessitated reductions in staff at many parks. Over the last five years the question for natural resource managers across the National Park System has become, How can NPS core staff work most efficiently in garnering and managing available resources?

LAKE MEAD: A CASE IN POINT

Resource management at Lake Mead National Recreation Area mirrors that pattern. In 1987 this large park, located along the Arizona-Nevada border, had one professional resource management specialist and a budget of about $100,000. By 1989 the staff had grown to four, creating a core group sufficient to document the needs for additional resource specialists. Reflecting the trend in resource management growth throughout the National Park Service, by 1997 Lake Mead's staff of resource managers had grown to 14 full-time professionals. In 1997, at the peak of park staffing, the Division of Resource Management spent approximately $1.34 million.

Permanent staff during the 1990s accomplished many important planning tasks at Lake Mead, in particular outlining the needs and elements of a comprehensive resource management program. Other activities included a burro management plan and environmental impact statement, a prototype workshop to identify resource "vital signs" for monitoring, and park strategic plans for disturbed-area restoration, fisheries, fire management, and exotic plant management. To a large extent, the park resource program is living off the planning foundation set in the 1990s, as changing conditions make it increasingly difficult to focus on strategic and long-term issues.

By the late 1990s the administration of natural resource management in the National Park Service had begun to change. Federal and state agencies began to dramatically increase the number of regionally based conservation partnerships and initiatives. As these increased, so did the number of funded conservation projects that required management. True to this trend, the full-time professional staff at Lake Mead began to switch from implementing field projects to coordinating broad, regional planning efforts and managing temporary funds. At this time the Natural Resource Challenge initiative brought a further infusion of needed resource management project funding, and the newly established Inventory and Monitoring networks created additional regional partners across the park system.

BUDGETS INCREASE, THEN STABILIZE

In the early 1990s, Lake Mead National Recreation Area received several significant operational base funding increases, including increases for resource management. Since 1997, however, those budgets have remained generally static as operational costs have grown. Employees who were under the Civil Service Retirement System have retired and have been replaced by more expensive staff under FERS, the Federal Employees Retirement System. Additionally, utility costs have gone up, as have certain significant contracts (garbage collection). The nature of resource management at Lake Mead needed to change in response to these realities.

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The park has had to stay within operational budget constraints through attrition of staff, and by 2004 resource management had declined to 8 full-time professional staff, down from 14 seven years earlier. Yet the amount of work for these employees remains tremendous because the resource management program at Lake Mead is almost entirely driven by interagency forums and programs and resultant project funding. To illustrate, in FY 2004 those staff obligated approximately $3.8 million, of which only about 32% was from park base funding (i.e., operation of the National Park Service). About 70% of the park's projects are paid for by other than park base funding, the vast majority coming from non-NPS sources.

The scope of projects managed by partnerships at Lake Mead is tremendous and includes water quality, conservation of various species and their habitats, and several types of planning across multiple

political jurisdictions. In 2004, resource managers were involved in more than 60 interagency and multi-interest-group partnerships and oversaw project operations that involved 50 non-NPS employees from agreements and contract sources. The time just to coordinate meetings for the groups involved in these functions is 160 days or more per year. Moreover, many functions require progress and data reports, with an annual time of about 60 days. Lake Mead's data systems and GIS also add to the complexity of coordination, as they must be compatible with the needs of more than six interagency ecosystem planning and management teams, including the NPS Inventory and Monitoring network. Finally, the need to respond to about six funding proposal calls per year, more requirements for compliance activities, and an increased focus on results and accountability also compete for the limited time of professional staff.

One of the largest losses is the staff resource manager's familiarity with park natural resources and visitor use patterns.

Lake Mead National Recreation Area does benefit from a number of unique, local funding sources not available across the National Park Service. Though the type and amount of project funding from outside sources are different from park to park, the nature of the resource management work throughout the National Park System is becoming more similar. Increasingly, professional park resource staffs are being asked to participate in and accomplish their work through regionally based ecosystem forums. The number of park staff who can be supported by park base funding is declining, and implementation of resource programs is occurring more and more through the application and management of soft funding sources and partnerships aligned with park mission purposes.

CONCLUSION

Parks definitely benefit from increases in project funding that may be available from nontraditional sources. Another positive result of working through partnerships and networks is consensus building and establishing support for needed actions. Plus, coordination is the right thing to do; parks do not exist as insular sanctuaries. Long-term preservation depends upon managers working broadly across ecosystems.

Nonetheless, many challenges are associated with this emerging trend away from park-funded and -managed projects. It is not always possible to perfectly match park needs and priorities with those of a multiagency framework; the activities funded and the issues pursued by partnerships and regional forums are not always the park's highest priorities. Biologists and other specialists are increasingly working outside areas of the bulk of their professional training. As important as technical competencies are, staff must develop new skills to work in interagency arenas, write proposals, develop contracts and agreements, manage projects, and account for expenditures and results. Park capabilities must keep up with increases in contracts, procurement, and administration of a variety of funding sources. Improved communication systems are essential, as there is less "face time" among managers and employees. Continuity and focus on strategic objectives are difficult to maintain, and knowledge of park and NPS policies is hard to ensure when the majority of a program is being carried out by contractors and temporary employees. One of the largest losses is the staff resource manager's familiarity with park natural resources and visitor use patterns. Furthermore, as time for field tours and inspections becomes critically limited, resource managers are making more and more decisions about natural resources that are less and less familiar to them.

The largest challenge may be one of building or even maintaining morale for the remaining permanent staff. Many are being asked to adapt to management arenas different from the ones they were hired for. They are being asked to learn a battery of new skills and give up activities that brought them deep personal satisfaction. The pace of work is quickening, with schedules being set by the various interagency forums within which they must participate. Employees must write grant proposals and contracts, train new temporary staff, and report on accomplishments—sometimes quarterly—for tasks they may have performed a few years earlier. For individual parks and the National Park Service to succeed in this transition to partner-based resource management, we must actively work to maintain the morale and wellness of our operational staff, provide adequate training and employee development, maintain a focus on overall strategic objectives, and help staff maintain a connection with the park resources they love. ■

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Building a national network of parks

By Jonathan B. Jarvis

IN 2001 THE NATIONAL PARK SYSTEM ADVISORY BOARD, chartered by Congress to advise the NPS Director and the Secretary of the Interior on the future of the National Park System, called for the National Park Service to "serve as a catalyst to encourage collaboration among public and private park and recreation systems at all levels—to build a national network of parks and open spaces across America." A big problem with implementing this idea is that no one really knows what it means. I cannot define it to the satisfaction of everyone, but I can articulate my vision for it and how it relates to the direction we are headed in the Pacific West Region.

A national network of parks is not a new bureaucracy or an evil plot to "lock up the land," but rather a way of thinking, organizing, and sharing the connections among special places. National parks are just one type of park in a continuum that includes the "tot lot," city, county, state, and regional parks, open spaces, and forests, all maintained for public purposes. The units in the National Park System are no better or worse than these other places and cannot satisfy all the needs for recreation and environmental protection of a growing nation. Though national parks exemplify natural and cultural history on a national level, they do not represent the entire richness of our cultural heritage. Nor are they, as small islands in a sea of land uses, ecologically sustainable. In order to achieve the broad mandate of the NPS Organic Act—to preserve the national parks for future generations—we need all "parks" to be appreciated and protected. I see at least three threads that make logical connections among all parks.

The first is the resource connection. The cultural resource parks appear as isolated dots on a map, linked only by the inventiveness of a visitor and tourism bureau, which sees a marketing opportunity to attract tourists to an area with a theme. Notable exceptions are the Civil and Revolutionary War sites of the East and the Native American ruins of the Southwest. Yet many cultural themes remain unnoticed and dispersed, such as the migrant agricultural worker camps that stretch from the "Grapes of Wrath" to Cesar Chavez. The public would be better served if protected sites were linked thematically so that the entire story could be told and experienced. Such links would enhance local economies, enrich the stories of all Americans, and help identify gaps that need protection and interpretation by the appropriate entity.

Natural resource parks have clearly been set aside as areas of rare beauty and interesting geology, or as lands that could not be developed for agriculture or other commerce. Whereas each park was once thought to preserve what A. Starker Leopold called a "vignette of primitive America," contemporary park management requires us to think in terms of ecosystems, natural processes, habitat corridors, migratory species, and indicators of resource condition. No park can have it all, but a network of parks could, if there were logic to its linkages. Imagine a system of parks extending along a river from the Cascade Range to the Puget Sound, providing a mixture of habitat and travel corridors for migratory species that includes urban, rural, industrial, and wilderness areas. Each pearl along this necklace could be managed by a different entity and provide both natural resource protection and appropriate recreational opportunity, from soccer fields and golf courses in the urban setting to free-flowing streams and backcountry trails on forested slopes. This network is not unbroken, for it can be crisscrossed by bridges and interstates, and easily accommodates adjacent development that allows neighboring communities to enjoy the fruits of a local natural area in association with an active recreation site. Overlying it all are the vision and principles of a sustainable ecosystem.

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The second component is the recreational spectrum. We Americans expect much of our parks: the distinct babbling of a sun-sparkled brook, the tug of a trout on a fly line, the sweaty camaraderie of a touch football game, the downhill challenge of a black diamond ski run, the thrill of seeing our child score the winning soccer goal, the bonding of family over charcoal-broiled chicken and sticky marshmallows, the commanding view of a distant horizon gained through mountaineering, and the occasional glimpse of wild animals living free. Active or passive, all are forms of recreation, and parks are where we go for many of these experiences. When parks exist, we use them; when they do not, we create them or demand they be established. Surveys show that parks are located mostly in wealthy communities and that poorer parts of our country are truly underserved in this way. All Americans have a birthright to a park near their home, for it is essential to their health and welfare and serves as a threshold to the full spectrum of outdoor recreation and self-discovery.

The third component is the social value of parks, an area in which we are often inarticulate. Social value includes economics, a well-documented but often poorly understood aspect of the many positive influences of local, regional, or national parks. Parks are major contributors to the economy by the tourism they attract; the quality of life they provide for business owners, their employees, and the populace; and the clean air and water they ensure through the protection of natural systems. The health benefits of parks are incalculable, but a recent *USA Today* article stated that obesity cost American taxpayers $39 billion in 2003. Parks, as places to exercise, lengthen life spans, to be sure, but also save society money. Less well understood is the value of parks to the human spirit. Recent studies

show that hospital patients heal faster when they can see natural landscapes out their windows. Similarly, employees' productivity increases when they have views of natural areas and parks from their workplace. When is the last time you saw a "peace parking lot"? We designate peace parks because of the serenity derived from these places. Within parks are our hopes and dreams for a peaceful and civil society, and from them we gain inspiration.

By making organizational changes we can shift our thinking from the success of individual parks to the success of the park system.

I believe a national network of parks, interwoven recreationally, ecologically, economically, culturally, and socially, is necessary for the pursuit of happiness. I also believe this vision is possible and that the National Park Service, as the most visible symbol of the park idea, has a special role to play in its realization. The problem, however, is that the Park Service has not yet embraced this role. We are too busy taking care of our parks, too busy looking *in* rather than *out*. This is the product of our establishment and of many of our own policies. For example, most parks have their own enabling legislation, and in most cases this legislation is specific to that park and indicates almost as an afterthought that the park is part of a system. Each park has its own budget, line-itemed by Congress. Every park competes annually for hundreds of millions of dollars allocated to special accounts in more than 120 program areas. In some cases more energy is expended in the competition for funding than is derived from the small allocation the park receives. Operational increases, the most desirable of all funds, are often hoarded when received and resented when others get more than their "share." As we well know, the real power in the national parks lies with the superintendent, and because of the expectation that the superintendent will make his or her park the best, competition—instead of cooperation—is inherent. Finally, our rewards, appraisals, and recognition procedures are all about the success of individual parks rather than the success of the National Park System.

My key point is that by making organizational changes we can shift our thinking from the success of individual parks to the success of the park system as a whole, creating a partnership culture that leads us closer to a true system of parks. For the Pacific West Region, we took our first step in this direction last February when we launched our new internal organization. We are using the organizing principle of the natural resource monitoring networks, which groups parks by their ecological similarities or linkages to share staff and funds for monitoring member parks' resource conditions. Now park superintendents in those same groupings, eight networks in the Pacific West Region, are being asked to share their fiscal and human resources for cooperative network goals.

The Regional Leadership Council, our highest deliberative body, is now represented by superintendents chosen from each network. The advisory committees of the various program areas, the worker bees of the organization, are also network-based, and as they recommend the allocation of soft funding, they see the opportunities for resources to be shared among parks. The assignment of the deputy regional directors to oversee network collaboration brings unity to the overall regional structure and offers sharing opportunities among the networks. Public recognition of asset sharing and increasing the priority of funding requests among parks that share resources reinforce this new approach to park relationships. Through supervision, selection of new superintendents, and performance expectations, we are recognizing and rewarding cooperation and collaboration among the superintendents in these networks. We are also engaging our Rivers and Trails Conservation Assistance staff to work closely with park units and their surrounding communities to envision network connections outside of park boundaries.

The consequences of these changes will determine the way superintendents, the regional directorate, program chiefs, and their staffs think and act. Interdependency will develop and competition will diminish. When we begin to think, operate, and behave like a system of parks, then (and only then) will the National Park Service assume its broader responsibility of fostering a linked national network of parks.

I never doubt the ingenuity of NPS leaders, so I expect to be amazed at where this new journey takes us. Once "system" thinking takes root, we will see it expand to our neighbors in the parks family. Superintendents will develop the attitude that they have something to contribute to the larger system of parks rather than look for something to gain for their particular park. Then the National Park Service will be ready to lead the nation to a national network of parks, taking one of the greatest ideas America ever had and raising it to its next logical level. We in the Pacific West Region cannot claim that we had the idea, but we will be able to show how to make it happen. ■

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Leadership key to NPS future success

By Abigail B. Miller

I AM RETIRING FROM THE NATIONAL PARK SERVICE at a time of change for natural resource programs and issues. A large budget deficit and the need to stabilize federal spending due to the war in Iraq mean that the National Park Service is not likely to see a near-term repeat of the recent, unprecedented growth in our capability to manage park natural resources. In addition, the climate for managing public lands is changing, along with the climate itself. Stresses on natural resources continue to increase, and the modes of enjoying the national parks are changing as society changes. Aesthetics and ethics that many senior resource managers hold dear have changed: enjoying park scenery from an airplane, a big movie screen, or a fast recreational vehicle is not what we are used to, and often not what we like either. All of this change is unsettling for many natural resource managers in the National Park Service, who must continually adapt.

Beginning in the 1980s and building to the first years of this century, the National Park Service made significant progress in addressing deficiencies in natural resource management that were first identified in the 1960s. Before 1990, for example, only a small number of research scientists and trained natural resource specialists and managers worked for the National Park Service. As of 2003, the number of professional resource managers in the National Park Service had more than doubled to 1,093 from 487 just 10 years earlier. These employees are the first significant cadre of natural resource personnel in the Park Service. For many in this cadre the strides made in professionalizing resource programs, developing inventories of park resources, initiating monitoring programs to track resource conditions, addressing complex management issues, and undertaking ambitious resource restoration projects have come at the peak of their careers. And for many the future of natural resource management in the national parks is daunting because of the mounting pressures and complex issues we face.

We … will need quality leadership and hard work to further advance the tools that work well, to develop new approaches for what does not work, and to inspire perseverance in all.

I have always believed that change presents opportunity. In the belt tightening that will undoubtedly follow, along with ABC (the Department of the Interior's Activity-Based Cost management system), FBMS (the Financial and Business Management System), and an alphabet soup of other changing ways in which the National Park Service will do business, the path forward may not seem clear. But it is there. It lies in resource managers who will take the chance to lead. This includes those at the peak of their careers who now have a great opportunity to provide strong and wise leadership for their less experienced colleagues. The path ahead is also there in those who will add new perspectives, tools, and skills to meet the needs of the parks. This group includes all the wonderful new blood infused into the National Park Service in the last few years in new biologists, hydrologists, and other professionals who love the natural world. They too have the opportunity to take their place in NPS leadership. To them, changes are not as stark as they are for many of us old guard. We need the energy, education, and vision of younger leaders, combined with the wisdom of experienced NPS managers, to figure out how to adapt old paradigms to new conditions.

The National Park Service has laid a foundation for the future. The important next step is to find the means to strengthen this foundation so that the progress we have made to date will not erode and so that it can be built upon further when the time is ripe. This will take the work of all who care about park natural resources and especially will require their willingness to take on difficult leadership jobs. We have made a wonderful start in the last few years, but will need quality leadership and hard work to further advance the tools that work well, to develop new approaches for what does not work, and to inspire perseverance in all. The challenge now is to seize this opportunity. ■

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